

# Claims

- [c1] An end cover for a gas turbine combustor, said end cover comprising:
- a plate having a plate diameter, plate thickness, forward face, aft face, and a centerline;
  - a first fluid inlet extending from said aft face;
  - a second fluid inlet extending from said aft face;
  - a first manifold in fluid communication with said first fluid inlet;
  - a second manifold in fluid communication with said second fluid inlet; and,
  - a plurality of first openings located along said forward face and about said centerline, said first openings in fluid communication with said first and second manifolds such that a first fluid from said first manifold is separated from a second fluid from said second manifold by a wall integrally formed from a portion of said plate.
- [c2] The end cover of Claim 1 further comprising a central opening located along said centerline and extending from said aft face to said forward face.
- [c3] The end cover of Claim 1 wherein said first fluid is air.

- [c4] The end cover of Claim 1 wherein said second fluid is gas.
- [c5] The end cover of Claim 1 wherein said plate is stainless steel.
- [c6] The end cover of Claim 1 wherein said second manifold is located radially outward of said first manifold.
- [c7] The end cover of Claim 1 wherein said first openings contain a means for fixing a fuel injector to said end cover, proximate said forward face.
- [c8] The end cover of Claim 7 wherein said means for fixing a fuel injector to said end cover preferably comprises a threaded region that corresponds to a threaded region on said fuel injector.
- [c9] The end cover of Claim 1 wherein said plurality of first openings comprises at least five openings.
- [c10] The end cover of Claim 1 further comprising a plurality of second openings located in said aft face and corresponding to each of said first openings for supplying a liquid fuel to said first openings.
- [c11] An end cover for a dual fuel gas turbine combustor, said end cover comprising:

a plate having a plate diameter, plate thickness, forward face, aft face, and a centerline;  
a first fluid inlet extending from said aft face;  
a second fluid inlet extending from said aft face;  
a first manifold in fluid communication with said first fluid inlet;  
a second manifold in fluid communication with said second fluid inlet;  
a plurality of first openings located along said forward face and about said centerline, said first openings in fluid communication with said first and second manifolds such that a first fluid from said first manifold is separated from a second fluid from said second manifold by a wall integrally formed from a portion of said plate; and,  
a plurality of second openings located in said aft face and corresponding to each of said first openings for supplying a liquid fuel to said first openings.

[c12] The end cover of Claim 11 further comprising a central opening located along said centerline and extending from said aft face to said forward face.

[c13] The end cover of Claim 11 wherein said first fluid is air.

[c14] The end cover of Claim 11 wherein said second fluid is gas.

- [c15] The end cover of Claim 11 wherein said plate is stainless steel.
- [c16] The end cover of Claim 11 wherein said second manifold is located radially outward of said first manifold.
- [c17] The end cover of Claim 11 wherein said first openings contain a means for fixing a fuel injector to said end cover, proximate said forward face.
- [c18] The end cover of Claim 17 wherein said means for fixing a fuel injector to said end cover preferably comprises a threaded region that corresponds to a threaded region on said fuel injector.
- [c19] The end cover of Claim 11 wherein said plurality of first openings comprises at least five openings.